

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): A method of producing metal particles, comprising:  
  
jetting out a metal salt solution and a reducing agent solution from respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and  
  
discharging the mixed reaction solution from a discharging port having a diameter smaller than a diameter of the mixing chamber,  
  
wherein one of the metal salt solution and the reducing agent solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal to the straightly-going flow, to a position before a position where eddy viscosity generated by jetting the straightly-going flow into the mixing chamber would be maximum.
2. (original): The method according to Claim 1, wherein the straightly-going flow is in a thread line form.
3. (original): The method according to Claim 1, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.
4. (canceled).

5. (currently amended): A method of producing metal particles, comprising:  
jetting out a metal salt solution and a reducing agent solution from respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and  
discharging the mixed reaction solution from a discharging port having a diameter smaller than a diameter of the mixing chamber,  
wherein one of the metal salt solution and the reducing agent solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal to the straightly-going flow, to a position within a range where a velocity  $V_z$  of the straightly-going flow is represented by the following formula (1), in a direction along which the maximum velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the ~~mixing-camber~~ chamber:

Formula (1)  $(1/10) V_{z0} < V_z < V_{z0}$

wherein  $V_{z0}$  represents a velocity of the straightly-going flow at an outlet of the nozzle in the direction along which the maximum velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the ~~mixing-camber~~ chamber.

6. (original): The method according to Claim 5, wherein the straightly-going flow is in a thread line form.

7. (original): The method according to Claim 5, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.

8. (canceled).
9. (original): A method of producing metal fine-particles, comprising:  
jetting out a metal ion-containing solution and a hydroxide ion-containing solution from  
respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and  
discharging the mixed reaction solution from a discharging port having a diameter  
smaller than a diameter of the mixing chamber,  
wherein one of the metal ion-containing solution and the hydroxide ion-containing  
solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle  
having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and  
the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal  
to the straightly-going flow, to a position before a position where eddy viscosity generated by  
jetting the straightly-going flow into the mixing chamber would be maximum.
10. (original): The method according to Claim 9, wherein the metal fine-particles are  
fine particles of metal hydroxide.
11. (original): The method according to Claim 9, wherein the straightly-going flow is  
in a thread line form.
12. (original): The method according to Claim 9, wherein a flow velocity of the  
orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the  
straightly-going flow when being jetted out.
13. (canceled).
14. (canceled).

15. (currently amended): A method of producing metal fine-particles, comprising:  
jetting out a metal ion-containing solution and a hydroxide ion-containing solution from  
respective nozzles to a mixing chamber, to give a mixed reaction solution thereof; and  
discharging the mixed reaction solution from a discharging port having a diameter  
smaller than a diameter of the mixing chamber,

wherein one of the metal ion-containing solution and the hydroxide ion-containing  
solution is made into straightly-going flow, the straightly-going flow is jetted from a nozzle  
having a diameter smaller than the diameter of the mixing chamber to the mixing chamber, and  
the other solution is jetted out, in the form of orthogonal flow which is substantially orthogonal  
to the straightly-going flow, to a position within a range where a velocity  $V_z$  of the straightly-  
going flow is represented by the following formula (1), in a direction along which the maximum  
velocity of the straightly-going flow is exhibited when the straightly-going flow is jetted into the  
mixing-chamber chamber:

Formula (1)  $(1/10) V_{z0} < V_z < V_{z0}$

wherein  $V_{z0}$  represents a velocity of the straightly-going flow at an outlet of the nozzle  
in the direction along which the maximum velocity of the straightly-going flow is exhibited  
when the straightly-going flow is jetted into the mixing-chamber chamber.

16. (original): The method according to Claim 15, wherein the metal fine-particles  
are fine particles of metal hydroxide.

17. (original): The method according to Claim 15, wherein the straightly-going flow  
is in a thread line form.

18. (original): The method according to Claim 15, wherein a flow velocity of the orthogonal flow when being jetted out is equivalent to or less than a flow velocity of the straightly-going flow when being jetted out.

19. (canceled).

20. (canceled).